In the Claims:

Please amend the claims as follows:

Please substitute pending claims 1, 3 and 5-10 with the following claims 1, 3 and 5-10:

1 (Once amended) A method for identifying a compound that modulates sister chromatid separation by inhibiting the proteolytic activity of separase, characterized in that an active separase in the form of

a) one or more separase fragments, optionally upon activation in the presence of securin, or

b) the full-length separase upon activation in the presence of securin,

is incubated in the presence of a separase substrate, with a test compound and that modulating effect of the test compound on the proteolytic activity of the active separase is determined.

1. (Once amended) The method of claim 1, wherein the active separase is activated in a mitotic cell extract in the presence of securin.

5. (Once amended) The method of claim 1, wherein the separase substrate is a peptide comprising a fluorogenic group, which upon processing of the polypeptide results in a change in fluorescence and that change in fluorescence is correlated with the separase activity.

6. (Once amended) The method of claim 5, wherein the separase substrate is a peptide selected from peptides containing the sequence DREIMR (SEQ ID NO:9), SFEILR (SEQ ID NO:11) or EWELLR (SEQ ID NO:12).

7. (Once amended) A peptide selected from peptides containing the sequence DREIMR (SEQ ID NO:9), SFEILR (SEQ ID NO:11) or EWELLR (SEQ ID NO:12) or a derivative thereof.

8. (Once amended) The peptide of claim 7 or a derivative thereof for the treatment of cancer.

9. (Once amended) A pharmaceutical composition comprising the peptide of claim 7.

10. (Once amended) An inhibitor of separate identified by the method of claim 1 for human therapy.